Pending Claims:

Claims 1-29 (Canceled)

30. (Original) An isolated nucleic acid molecule comprising a nucleotide sequence encoding mutated canine von Willebrand Factor polypeptide which causes canine von Willebrand's disease, wherein the nucleotide sequence is capable of hybridizing under high stringency conditions to the complementary sequence of the sequence of SEQ ID NO. 1 having a mutation at nucleotide 937.

31. (Original) A vector comprising the nucleic acid molecule of Claim 30.

32. (Original) A cell comprising the vector of Claim 31.

33. (Original) The isolated nucleic acid molecule of Claim 30, wherein the mutation at nucleotide 937 is a base deletion.

34. (Original) A method of detecting a canine von Willebrand Factor gene in a sample comprising the steps of:

a) contacting the sample with an oligonucleotide comprising contiguous nucleotides of the nucleic acid sequence of SEQ ID NO. 1 or complement thereof, having a mutation at nucleotide 937, and capable of specifically hybridizing with the canine von Willebrand Factor gene, under conditions favorable for hybridization of the oligonucleotide to any complementary sequence of nucleic acid in the sample; and

b) detecting hybridization, thereby detecting a canine von Willebrand Factor gene.

35. (Original) The method of Claim 34, further comprising the step of:

c) quantifying hybridization of the oligonucleotide to the complementary sequence.

36. (Original) The method of Claim 34, wherein the mutation at nucleotide 937 is a base deletion.

37. (Original) An assay kit for screening for a canine von Willebrand Factor gene comprising:

a) an oligonucleotide comprising contiguous nucleic acids of the nucleotide sequence of SEQ ID NO. 1 having a mutation at nucleotide 937, and capable of hybridizing with the nucleotide sequence encoding canine von Willebrand Factor;

b) reagents for hybridization of the oligonucleotide to a complementary nucleic acid sequence; and

c) container means for a)-b).

38. (Original) The assay kit of Claim 37, wherein the mutation at nucleotide 937 is a base deletion.

39. (Original) An assay kit for screening for a canine von Willebrand Factor gene comprising:

a) a oligonucleotide comprising contiguous nucleic acids of the nucleotide sequence that is complementary to the sequence of SEQ ID NO. 1 having a mutation at nucleotide 937, and capable of specifically hybridizing to the complementary nucleotide sequence;

b) reagents for hybridization of the oligonucleotide to a complementary nucleic acid sequence; and

c) container means for a)-b).

40. (Original) The assay kit of Claim 39, wherein the mutation at nucleotide 937 is a base deletion.

41. (Amended) A method for detecting a mutated canine von Willebrand Factor gene in a canine DNA sample comprising the steps of:

a) amplifying the DNA sample by polymerase chain reaction to produce polymerase chain reaction products, wherein the polymerase chain reaction uses primers that produce a restriction site in a mutant allele but not in a normal allele, wherein the mutation in the mutant allele is a base deletion at nucleotide 937 of the gene encoding canine von Willebrand Factor (SEQ ID NO. 1);

b) digesting the polymerase chain reaction products with a restriction enzyme specific to the restriction site of the restriction site primer to produce DNA fragments; and

c) detecting the DNA fragments, thereby detecting a mutated canine von Willebrand Factor gene.

42. (Original) The method of Claim 41, wherein the DNA fragments are detected by gel electrophoresis.

43. (Original) The method of Claim 41, wherein the primers comprise the sequence of SEQ ID NOS: 23 and 25.

44. (Original) The method of Claim 41, wherein the restriction enzyme is *Mwo I*.

45. (Original) An oligonucleotide probe capable of detecting a mutation associated with canine von Willebrand's disease, wherein the mutation is a base deletion at nucleotide 937 of the nucleotide sequence encoding canine von Willebrand Factor polypeptide, wherein the nucleotide sequence is capable of hybridizing under high stringency conditions to the complementary sequence of the sequence of SEQ ID NO. 1.